Amendments to and Listing of the Claims:

Please add new claims 58-68 as follows:

1. (Original) An ionization system for a predefined area comprising:

(a) a plurality of emitter modules spaced around the area, each emitter module having an individual address and including at least one electrical ionizer;

(b) a system controller for individually addressing and monitoring the emitter modules; and

(c) communication lines for electrically connecting the plurality of emitter modules with the system controller.

2. (Original) A system according to claim 1 wherein each of the emitter modules further includes means for transmitting alarm condition information related to at least one operating parameter of the electrical ionizer via the communication lines, the alarm condition information including the emitter module address, the system controller receiving the alarm condition information.

3. (Original) A system according to claim 2 wherein the operating parameter is the status of a positive or negative emitter.

4. (Original) A system according to claim 2 wherein the operating parameter is an ion imbalance condition.

5. (Original) A system according to claim 1 wherein the communication lines are connected in a daisy-chain manner to each of the emitter modules, the communication lines providing both (i) communication, and (ii) power to the emitter modules.

6. (Original) A system according to claim 1 wherein each emitter module further includes a stored balance reference value, and the system controller includes means for individually monitoring the stored balance reference value of each emitter module.

7. (Original) A system according to claim 1 wherein each emitter module further includes a stored ion output current reference value, and the system controller includes means for individually monitoring the stored ion output current reference value of each emitter module.

8. (Original) A system according to claim 1 further comprising:

(d) a remote control transmitter having an emitter address setting and a balance adjustment function, each emitter module further including a stored balance reference value and a remote control receiver electrically connected to the balance reference value and responsive to the remote control transmitter, wherein the remote control transmitter allows the balance reference value of each emitter module to be individually adjusted.

9. (Original) A system according to claim 1 further comprising:

(d) a remote control transmitter having an emitter address setting and an ion output current adjustment function, each emitter module further including a stored ion output current reference value and a remote control receiver electrically connected to the ion output current reference value and responsive to the remote control transmitter,

wherein the remote control transmitter allows the ion output current reference value of each emitter module to be individually adjusted.

10. (Previously presented) A method of balancing positive and negative ion output in an electrical ionizer having an ion emitter and positive and negative high voltage power supplies associated with the ion emitter, the method comprising:

(a) storing a balance reference value in a software adjustable memory located in the electrical ionizer;

(b) during operation of the electrical ionizer, comparing the balance reference value to a balance measurement value taken by an ion balance sensor located close to the ion emitter;

(c) automatically adjusting at least one of the positive and negative high voltage power supplies if the balance reference value is not equal to the balance measurement value, the adjustment being performed in a manner which causes the balance measurement value to become equal to the balance reference value;

(d) during operation of the electrical ionizer, measuring the actual ion balance in the work space near the electrical ionizer; and

(e) adjusting the balance reference value if the balance measurement value is equal to the balance reference value and the actual measured ion balance is not zero, the adjustment being performed in a manner which causes the actual measured ion balance to approach zero.

11. (Previously presented) A method according to claim 10, further comprising:

(f) upon initiation of the operation of the electrical ionizer, adjusting the positive and negative high voltage power supplies in a nonlinear manner, thereby

avoiding sudden changes in positive or negative ion output or potential overshoot of the balanced state.

12. (Previously presented) A method according to claim 11, wherein the electrical ionizer operates in a pulse DC mode and the automatic adjusting in step (c) is performed nonlinearly by gradually adjusting the pulse rate of the positive and negative high voltage power supply from a first pulse rate value to a second pulse rate value.

13. (Previously presented) A method according to claim 11, wherein the electrical ionizer operates in either a pulse DC mode or a steady state DC mode, and the automatic adjusting in step (c) is performed nonlinearly by gradually adjusting the DC amplitude of the positive or negative high voltage power supply from a first DC amplitude value to a second DC amplitude value.

14. (Previously presented) A method according to claim 10, wherein measuring step (d) is performed by using a charged plate monitor.

15. (Previously presented) A method according to claim 10, wherein steps (d) and (e) are performed during calibration or initial setup of the electrical ionizer.

16. (Previously presented) A method according to claim 10, wherein the electrical ionizer further includes a remote control receiver electrically connected to the balance reference value and responsive to a remote control transmitter, and the adjusting step (e) comprises using the remote control transmitter to adjust the balance reference value via the remote control

receiver while monitoring the actual measured ion balance to cause the actual measured ion balance to approach zero.

17. (Previously presented) A method according to claim 10, further comprising:

(g) comparing the absolute value of the difference between the balance reference value and the balance measurement value as determined in the comparing step (b); and

(h) causing an alarm condition to be indicated if the absolute value of the difference is greater than a predetermined value at one or more instances of time.

18. (Previously presented) A method according to claim 10, wherein the adjustment of the balance reference value is performed using one of a remote system controller and a wireless remote control.

19. (Previously presented) A method according to claim 10, wherein the automatic adjusting of at least one of the positive and negative high voltage power supplies is performed by ramping up or ramping down the output of the at least one of the positive and negative power supplies at a predetermined rate.

20. (Previously presented) A method according to claim 10, further comprising:

(d) upon initiation of the operation of the electrical ionizer, ramping up the output of at least one of the positive and negative high voltage power supplies at a predetermined rate, thereby avoiding sudden changes in positive or negative ion output or potential overshoot of the balanced state.

21. (Previously presented) A method according to claim 10, wherein the electrical ionizer operates in a pulse DC mode and the automatic adjusting in step (c) is performed by gradually adjusting the pulse rate of the positive and negative high voltage power supply from a first pulse rate value to a second pulse rate value.

22. (Previously presented) A method according to claim 10, wherein the electrical ionizer operates in either a pulse DC mode or a steady state DC mode, and the automatic adjusting in step (c) is performed by gradually adjusting the DC amplitude of the positive or negative high voltage power supply from a first DC amplitude value to a second DC amplitude value.

23. (Previously presented) A method according to claim 10, further comprising:

(f) causing an alarm condition to be indicated if the actual ion balance varies from the balance reference value by a predetermined amount.

24. (Previously presented) An electrical ionizer having an ion emitter and positive and negative high voltage power supplies associated with the ion emitter, the electrical ionizer comprising:

(a) a software-adjustable memory for storing a balance reference value, the balance reference value being user adjustable;

(b) a comparator for comparing the balance reference value to a balance measurement value taken by an ion balance sensor located close to the ion emitter; and

(c) an automatic balance adjustment circuit for adjusting at least one of the positive and negative high voltage power supplies if the balance reference value is not

equal to the balance measurement value, the adjustment being performed in a manner which causes the balance measurement value to become equal to the balance reference value.

25. (Previously presented) An electrical ionizer according to claim 24, further comprising:

(d) means for adjusting the balance reference value, the balance reference value being adjusted if the balance measurement value is equal to the balance reference value and an actual measured ion balance measured in the work space near the electrical ionizer is not zero, the adjustment being performed in a manner which causes the actual measured ion balance to approach zero.

26. (Previously presented) An electrical ionizer according to claim 25, further comprising:

(e) a remote control receiver electrically connected to the balance reference value and responsive to a remote control transmitter, wherein the means for adjusting uses signals from the remote control transmitter to adjust the balance reference value via the remote control receiver while monitoring the actual measured ion balance to cause the actual measured ion balance to approach zero.

27. (Previously presented) An electrical ionizer according to claim 24, wherein the electrical ionizer operates in a pulse DC mode, and the automatic balance adjustment circuit performs the adjustment nonlinearly by gradually adjusting the pulse rate of the positive and negative high voltage power supply from a first pulse rate value to a second pulse rate value.

28. (Previously presented) An electrical ionizer according to claim 24, wherein the electrical ionizer operates in either a pulse DC mode or a steady state DC mode, and the automatic balance adjustment circuit performs the adjustment nonlinearly by gradually adjusting the DC amplitude of the positive or negative high voltage power supply from a first DC amplitude value to a second DC amplitude value.

29. (Previously presented) An electrical ionizer according to claim 24, further comprising:

(d) means for comparing the absolute value of the difference between the balance reference value and the balance measurement value as determined by the comparator; and

(e) means for causing an alarm condition to be indicated if the absolute value of the difference is greater than a predetermined value at one or more instances of time.

30. (Previously presented) An electrical ionizer according to claim 24 further comprising:

(d) means for causing the automatic balance adjustment circuit to perform the adjustment nonlinearly upon initiation of the operation of the electrical ionizer, thereby avoiding sudden changes in positive or negative ion output or potential overshoot of the balanced state.

31. (Previously presented) An electrical ionizer according to claim 24, wherein the user adjustment of the balance reference value is performed using one of a remote system controller and a wireless remote control.

32. (Previously presented) An electrical ionizer according to claim 24, wherein the adjustment circuit is configured to ramp up or ramp down the output of the at least one of the positive and negative power supplies at a predetermined rate.

33. (Previously presented) An electrical ionizer according to claim 24, further comprising:

(d) an alarm circuit that indicates when the balance measurement value varies from the balance reference value by a predetermined amount.

34. (Previously presented) A method of controlling positive and negative ion output current in an electrical ionizer having (i) an ion emitter, (ii), positive and negative high voltage power supplies associated with the ion emitter, and (iii) current metering circuitry for monitoring the positive and negative ionizer ion output current, the method comprising:

(a) storing an ion output current reference value in a software-adjustable memory in the electrical ionizer;

(b) during operation of the electrical ionizer, comparing the ion output current reference value to an actual ion output current value taken by the current metering circuitry;

(c) automatically adjusting at least one of the positive and negative high voltage power supplies if the actual ion output current value is not equal to the ion output current reference value, the adjustment being performed in a manner which causes the actual ion output current value to become equal to the ion output current reference value;

(d) during operation of the electrical ionizer, measuring an indicator of the actual ion output current value in the work space near the electrical ionizer; and

(e) adjusting the ion output current reference value if the indicator is not near a desired value, the adjustment being performed to cause the indicator of the actual ion output current value to become near the desired value.

35. (Previously presented) A method according to claim 34, further comprising:

(f) upon initiation of the operation of the electrical ionizer, adjusting the positive and negative high voltage power supplies in a nonlinear manner, thereby avoiding sudden changes in positive or negative ion output or potential overshoot of the desired value.

36. (Previously presented) A method according to claim 34, wherein the electrical ionizer operates in a pulse DC mode and the automatic adjusting in step (c) is performed nonlinearly by gradually adjusting the pulse rate of the positive and negative high voltage power supply from a first pulse_rate value to a second pulse rate value.

37. (Previously presented) A method according to claim 34, wherein measuring step (d) is performed using a charged plate monitor.

38. (Previously presented) A method according to claim 34, wherein steps (d) and (e) are performed during calibration or initial setup of the electrical ionizer.

39. (Previously presented) A method according to claim 34, wherein the electrical ionizer further includes a remote control receiver electrically connected to the ion output current reference value and responsive to a remote control transmitter, and the adjusting step (e) comprises using the remote control transmitter to adjust the ion output current reference value

via the remote control receiver while monitoring the indicator of the actual ion output current value to cause the indicator to become near the desired value.

40. (Previously presented) A method according to claim 34, wherein the electrical ionizer operates in either a pulse DC mode or a steady state DC mode, and the automatic adjusting in step (c) is performed nonlinearly by gradually adjusting the DC amplitude of the positive or negative high voltage power supply from a first DC amplitude value to a second DC amplitude value.

41. (Previously presented) A method according to claim 34 further comprising:

(f) comparing the absolute value of the difference between the ion output current reference value and the actual ion output current value as determined in the comparing step (b); and

(g) causing an alarm condition to be indicated if the absolute value of the difference is greater than a predetermined value at one or more instances of time.

42. (Previously presented) A method according to claim 34, wherein the adjustment of the balance reference value is performed using one of a remote system controller and a wireless remote control.

43. (Previously presented) A method according to claim 34, wherein the automatic adjusting of at least one of the positive and negative high voltage power supplies is performed by ramping up or ramping down the output of the at least one of the positive and negative power supplies at a predetermined rate.

44. (Previously presented) A method according to claim 34, further comprising:

(d) upon initiation of the operation of the electrical ionizer, ramping up the output of at least one of the positive and negative high voltage power supplies at a predetermined rate, thereby avoiding sudden changes in positive or negative ion output or potential overshoot of the balanced state.

45. (Previously presented) A method according to claim 34, wherein the electrical ionizer operates in a pulse DC mode and the automatic adjusting in step (l) is performed by gradually adjusting the pulse rate of the positive and negative high voltage power supply from a first pulse rate value to a second pulse rate value.

46. (Previously presented) A method according to claim 34, wherein the electrical ionizer operates in either a pulse DC mode or a steady state DC mode, and the automatic adjusting in step (l) is performed by gradually adjusting the DC amplitude of the positive or negative high voltage power supply from a first DC amplitude value to a second DC amplitude value.

47. (Previously presented) A method according to claim 34, further comprising:

(o) causing an alarm condition to be indicated if the actual ion output current value varies from the balance reference value by a predetermined amount.

48. (Previously presented) An electrical ionizer having an ion emitter and positive and negative high voltage power supplies associated with the ion emitter, the electrical ionizer comprising:

(a) a software-adjustable memory for storing an ion output and positive and current reference value, the ion output current reference value being user adjustable;

(b) a comparator for comparing the ion output current reference value to an actual ion output current value taken by current metering circuitry which monitors the positive and negative ionizer ion output current; and

(c) an automatic ion output current adjustment circuit for adjusting at least one of the positive and negative high voltage power supplies if the actual ion output current value is not equal to the ion output current reference value, the adjustment being performed in a manner which causes the actual ion output current value to become equal to the ion output current reference value.

49. (Previously presented) An electrical ionizer according to claim 48, further comprising:

(d) means for adjusting the ion output current reference value, the ion output current reference value being adjusted if an indicator of the actual ion output current value measured in the work space near the electrical ionizer is not near a desired value, the adjustment being performed to cause the indicator of the actual ion output current value to become near the desired value.

50. (Previously presented) An electrical ionizer according to claim 49, further comprising:

(e) a remote control receiver electrically connected to the ion output current reference value and responsive to a remote control transmitter, wherein the means for adjusting uses signals from the remote control transmitter to adjust the ion output current reference value via the remote control receiver while monitoring the indicator of the actual ion output current value to cause the indicator to become near the desired value.

51. (Previously presented) An electrical ionizer according to claim 48, wherein the electrical ionizer operates in a pulse DC mode, and the automatic ion output current adjustment circuit performs the adjustment nonlinearly by gradually adjusting the pulse rate of the positive and negative high voltage power supply from a first pulse rate value to a second pulse rate value.

52. (Previously presented) An electrical ionizer according to claim 48, wherein the electrical ionizer operates in either a pulse DC mode or a steady state DC mode, and the automatic ion output current adjustment circuit performs the adjustment nonlinearly by gradually adjusting the DC amplitude of the positive or negative high voltage power supply from a first DC amplitude value to a second DC amplitude value.

53. (Previously presented) An electrical ionizer according to claim 48, further comprising:

(d) means for comparing the absolute value of the difference between the ion output current reference value and the actual ion output current value as determined by the comparator; and

(e) means for causing an alarm condition to be indicated if the absolute value of the difference is greater than a predetermined value at one or more instances of time.

54. (Previously presented) An electrical ionizer according to claim 48, further comprising:

(d) means for causing the automatic balance adjustment circuit to perform the adjustment nonlinearly upon initiation of the operation of the electrical ionizer, thereby

avoiding sudden changes in positive or negative ion output or potential overshoot of the balanced state.

55. (Previously presented) An electrical ionizer according to claim 48, wherein the user adjustment of the ion output current reference value is performed using one of a remote system controller and a wireless remote control.

56. (Previously presented) An electrical ionizer according to claim 48, wherein the adjustment circuit is configured to ramp up or ramp down the output of the at least one of the positive and negative power supplies at a predetermined rate.

57. (Previously presented) An electrical ionizer according to claim 48, further comprising:

(d) an alarm circuit that indicates when the actual ion output current value varies from the ion output current reference value by a predetermined amount.

58. (New) An ionization system for a predefined area comprising:

(a) a plurality of emitter modules spaced around the area, each emitter module having a receiver, an individual address and at least one operational setting, and each emitter module including at least one electrical ionizer; and

(b) a remote control having an emitter address setting and a transmitter, the remote control transmitter individually addressing each emitter module to make remote adjustments to the at least one operational setting of each emitter module by communicating through the receiver of each emitter module.

59. (New) The ionization system according to claim 58, wherein the at least one operational setting includes one of an output mode, an output level, an output offset, an output gain, an output balance and a calibration setting.

60. (New) The ionization system according to claim 58, wherein the at least one operational setting includes an output mode, the output mode being one of steady-state direct current (DC) and pulsed DC.

61. (New) The ionization system according to claim 58, wherein individual address of each emitter module is locally settable at the emitter module.

62. (New) The ionization system according to claim 58, wherein the transmitter and the receiver of each emitter module communicate by one of radio frequency (RF) and infrared (IR).

63. (New) An ionization system for a predefined area comprising:

(a) a plurality of emitter modules spaced around the area, each emitter module having an individual address, at least one electrical ionizer and at least one operation setting;

(b) a receiver electrically coupled to the plurality of emitter modules; and

(c) a remote control having an emitter address setting and a transmitter, the remote control transmitter individually addressing each emitter module to make remote adjustments of the emitter modules by communicating through the receiver.

64. (New) An ionization system comprising:

(a) an emitter module having at least one electrical ionizer, an individual address and at least one operational setting;

(b) at least one receiver electrically coupled to the emitter module; and

(c) a remote control having an emitter address setting and a transmitter, the remote control transmitter addressing the emitter module to remotely adjust the at least one operational setting of the emitter module by communicating through the receiver.

65. (New) A method of calibrating an emitter module having at least one electrical ionizer, an individual address and a receiver, the emitter module being disposed in a workspace, the method comprising:

(a) during operation of the electrical ionizer, measuring an ion balance measurement value taken by an ion balance sensor disposed in the workspace, the ion balance sensor being spaced apart from the emitter module; and

(b) adjusting an output of the emitter module by addressing the emitter module using a remote control to communicate with the receiver, the adjustment being performed in a manner which causes the actual measured ion balance value to approach a desired value.

66. (New) The method according to claim 65, wherein the ion balance sensor is a charged plate monitor.

67. (New) The method according to claim 65, wherein the desired value of the ion balance measurement value is about zero.

68. (New) The method according to claim 65, wherein operation of the remote control is performed at a distance sufficient to avoid interference with the ion balance measurement value.